SEQUENCE LISTING

<110> Payan, Donald

<120> TOSO AS A TARGET FOR DRUG SCREENING

<130> A-65679-1/RMS/DHR

<140> US 09/651,150
<141> 2000-08-30

<150> US 09/050,861
<151> 1998-03-30

<160> 35

<170> PatentIn version 3.1

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aacatgtggt accgtggtat ccaccaccaa cttcatcaag gcagaataca agggccgagt 300

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tgaaaggagg aaagccctct ccaggcgggc ccgccgactg gccgtgagga tgcgcgccct 960

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<210> 2
<211> 390
<212> PRT
<213> Homo sapiens

<400> 2

Met Asp Arg Trp Leu Trp Pro Leu Tyr Phe Leu Pro Val Ser Gly Ala
1 5 10 15

Leu Arg Ile Leu Pro Glu Val Lys Val Glu Gly Glu Leu Gly Gly Ser
20 25 30

Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
35 40 45

Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
50 55 60

Thr Asn Phe Ile Lys Ala Glu Tyr Lys Gly Arg Val Thr Leu Lys Gln
65 70 75 80

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Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
                85                  90                  95

Ser Asp Ser Gly Val Tyr Ala Cys Gly Ala Gly Met Asn Thr Asp Arg
            100                 105                 110

Gly Lys Thr Gln Lys Val Thr Leu Asn Val His Ser Glu Tyr Glu Pro
        115                 120                 125

Ser Trp Glu Glu Gln Pro Met Pro Glu Thr Pro Lys Trp Phe His Leu
    130                 135                 140

Pro Tyr Leu Phe Gln Met Pro Ala Tyr Ala Ser Ser Ser Lys Phe Val
145                 150                 155                 160

Thr Arg Val Thr Thr Pro Ala Gln Arg Gly Lys Val Pro Pro Val His
                165                 170                 175

His Ser Ser Pro Thr Thr Gln Ile Thr His Arg Pro Arg Val Ser Arg
            180                 185                 190

Ala Ser Ser Val Ala Gly Asp Lys Pro Arg Thr Phe Leu Pro Ser Thr
        195                 200                 205

Thr Ala Ser Lys Ile Ser Ala Leu Glu Gly Leu Leu Lys Pro Gln Thr
    210                 215                 220

Pro Ser Tyr Asn His His Thr Arg Leu His Arg Gln Arg Ala Leu Asp
225                 230                 235                 240

Tyr Gly Ser Gln Ser Gly Arg Glu Gly Gln Gly Phe His Ile Leu Ile
                245                 250                 255

Pro Thr Ile Leu Gly Leu Phe Leu Leu Ala Leu Leu Gly Leu Val Val
            260                 265                 270

Lys Arg Ala Val Glu Arg Arg Lys Ala Leu Ser Arg Arg Ala Arg Arg
        275                 280                 285

Leu Ala Val Arg Met Arg Ala Leu Glu Ser Ser Gln Arg Pro Arg Gly
    290                 295                 300
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B12 cont.

Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr Ser Ala Cys Pro Arg
305 310 315 320

Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly Glu Ala Pro Val Pro
325 330 335

Gly Pro Gly Ala Pro Leu Pro Pro Ala Pro Leu Gln Val Ser Glu Ser
340 345 350

Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Glu Tyr Val Ser
355 360 365

Leu Tyr His Gln Pro Ala Ala Met Met Glu Asp Ser Asp Ser Asp Asp
370 375 380

Tyr Ile Asn Val Pro Ala
385 390

<210> 3
<211> 73
<212> PRT
<213> Homo sapiens

B12 cnt

<400> 3

Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
1 5 10 15

Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
20 25 30

Thr Asn Phe Ile Lys Ala Glu Trp Lys Gly Arg Val Thr Leu Lys Gln
35 40 45

Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
50 55 60

Ser Asp Ser Gly Val Tyr Ala Cys Gly
65 70

<210> 4
<211> 79
<212> PRT
<213> Homo sapiens

<400> 4

Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Thr Phe Ser Asn Asp Tyr
1 5 10 15

Tyr Thr Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile Gly
20 25 30

Tyr Val Phe Tyr His Gly Thr Ser Asp Asp Thr Thr Pro Leu Arg Ser
35 40 45

Arg Val Thr Met Leu Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Arg
50 55 60

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
65 70 75

<210> 5
<211> 73
<212> PRT
<213> Homo sapiens

<400> 5

B12 cont.

Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn
1 5 10 15

Tyr Ala Asn Trp Val Gln Gln Lys Pro Asp His Leu Phe Thr Gly Ile
20 25 30

Gly Gly Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe Ser Gly
35 40 45

Ser Leu Ile Gly Asn Lys Ala Ala Leu Thr Ile Thr Gly Ala Gln Thr
50 55 60

Glu Asp Glu Ala Ile Tyr Phe Cys Ala
65 70

<210> 6
<211> 72
<212> PRT
<213> Homo sapiens

<400> 6

Thr Ser Leu Asn Cys Thr Phe Ser Asp Ser Ala Ser Gln Tyr Phe Trp

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1               5                   10                  15

Trp Tyr Arg Gln His Ser Gly Lys Ala Pro Lys Ala Leu Met Ser Ile
            20                  25                  30

Phe Ser Asn Gly Glu Lys Glu Glu Gly Arg Phe Thr Ile His Leu Asn
        35                  40                  45

Lys Ala Ser Leu His Phe Ser Leu His Ile Arg Asp Ser Gln Pro Ser
    50                  55                  60

Asp Ser Ala Leu Tyr Leu Cys Ala
65                  70
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<210> 7
<211> 75
<212> PRT
<213> Homo sapiens

<400> 7

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Val Thr Leu Arg Cys Lys Pro Ile Ser Gly His Asn Ser Leu Phe Trp
1               5                   10                  15

Tyr Arg Gln Thr Met Met Arg Gly Leu Glu Leu Leu Ile Tyr Phe Asn
            20                  25                  30

Asn Asn Val Pro Ile Asp Asp Ser Gly Met Pro Glu Asp Arg Phe Ser
        35                  40                  45

Ala Lys Met Pro Asn Ala Ser Phe Ser Thr Leu Lys Ile Gln Pro Ser
    50                  55                  60

Glu Pro Arg Asp Ser Ala Val Tyr Phe Cys Ala
65                  70                  75
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<210> 8
<211> 74
<212> PRT
<213> Homo sapiens

<400> 8

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Val Glu Leu Thr Cys Thr Ala Ser Gln Lys Lys Ser Ile Gln Phe His
1               5                   10                  15
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Trp Lys Asn Ser Asn Gln Ile Lys Ile Leu Gly Asn Gln Gly Ser Phe
20 25 30

Leu Thr Lys Gly Pro Ser Lys Leu Asn Asp Arg Ala Asp Ser Arg Arg
35 40 45

Ser Leu Trp Asp Gln Gly Asn Phe Pro Leu Ile Ile Lys Asn Leu Lys
50 55 60

Ile Glu Asp Ser Asp Thr Tyr Ile Cys Glu
65 70

<210> 9
<211> 80
<212> PRT
<213> Homo sapiens

<400> 9

Ala Lys Met Ser Cys Glu Ala Lys Thr Phe Pro Lys Gly Thr Thr Ile
1 5 10 15

Tyr Trp Leu Arg Glu Leu Gln Asp Ser Asn Lys Asn Lys His Phe Glu
20 25 30

B12 cont.

Phe Leu Ala Ser Arg Thr Ser Thr Lys Gly Ile Lys Tyr Gly Glu Arg
35 40 45

Val Lys Lys Asn Met Thr Leu Ser Phe Asn Ser Thr Leu Pro Phe Leu
50 55 60

Lys Ile Met Asp Val Lys Pro Glu Asp Ser Gly Phe Tyr Phe Cys Ala
65 70 75 80

<210> 10
<211> 76
<212> PRT
<213> Homo sapiens

<400> 10

Val Thr Ile Thr Cys Pro Phe Thr Tyr Ala Thr Arg Gln Leu Lys Lys
1 5 10 15

Ser Phe Tyr Lys Val Glu Asp Gly Glu Leu Val Leu Ile Ile Asp Ser
20 25 30

Ser Ser Lys Glu Ala Lys Asp Pro Arg Tyr Lys Gly Arg Ile Thr Leu
35 40 45

Gln Ile Gln Ser Thr Thr Ala Lys Glu Phe Thr Val Thr Leu Lys His
50 55 60

Leu Gln Leu Asn Asp Ala Gly Gln Tyr Val Cys Gln
65 70 75

<210> 11
<211> 84
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (6)..(51)
<223> "Xaa" at postitions 6-7, 9-18, 20, 22, 25-32, 34-35, 37-48 and 50-51 can be any amino acid.

<220>
<221> MISC_FEATURE
<222> (53)..(53)
<223> "Xaa" at postition 53 can be Phe, Val, or Ile.

B12 cont.

<220>
<221> MISC_FEATURE
<222> (54)..(76)
<223> "Xaa" at postitions 54-65, 71, and 73-76 can be any amino acid.

<220>
<221> MISC_FEATURE
<222> (79)..(79)
<223> "Xaa" at postition 79 can be either Ala or Gly.

<220>
<221> MISC_FEATURE
<222> (80)..(82)
<223> "Xaa" at postitions 80 and 82 can be any amino acid.

<400> 11

Val Thr Leu Thr Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Phe Xaa Trp Xaa Arg Gln Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Leu Xaa Xaa Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45

Tyr Xaa Xaa Arg Phe Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60

Xaa Phe Ser Leu Thr Ile Xaa Asn Xaa Xaa Xaa Xaa Asp Ser Ala Xaa
65 70 75 80

Tyr Xaa Cys Ala

<210> 12
<211> 43
<212> PRT
<213> Homo sapiens

<400> 12

Gln Arg Pro Arg Gly Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr
1 5 10 15

Ser Ala Cys Pro Arg Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly
20 25 30

B12
GLY.

Glu Ala Pro Val Pro Gly Pro Gly Ala Pro Leu
35 40

<210> 13
<211> 35
<212> PRT
<213> Homo sapiens

<400> 13

Arg Arg Pro Arg Gly Glu Pro Gly Pro Arg Ala Pro Arg Pro Thr Glu
1 5 10 15

Gly Ala Thr Cys Ala Gly Pro Gly Glu Ser Trp Ser Pro Ser Pro Asn
20 25 30

Ser Met Leu
35

<210> 14

<211> 36
<212> PRT
<213> Homo sapiens

<400> 14

Met Pro Pro Arg Tyr Gly Ser Leu Arg Gln Ser Cys Pro Arg Ser Gly
1 5 10 15

Arg Glu Gln Gly Gln Asp Gly Thr Ala Gly Ala Pro Gly Leu Leu Trp
20 25 30

Met Gly Leu Val
35

<210> 15
<211> 19
<212> PRT
<213> Homo sapiens

<400> 15

Glu Ser Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Glu Tyr
1 5 10 15

B12 ant.

Val Ser Leu

<210> 16
<211> 19
<212> PRT
<213> Homo sapiens

<400> 16

Asp Ala Pro Trp Gln Gln His Ala Arg Trp Tyr Asp Arg Cys Glu Tyr
1 5 10 15

Val Leu Leu

<210> 17
<211> 19
<212> PRT
<213> Homo sapiens

<400> 17

Gln Gln Pro Leu Leu His Pro Pro Glu Pro Lys Ser Pro Gly Glu Tyr
1 5 10 15

Val Asn Ile

<210> 18
<211> 19
<212> PRT
<213> Homo sapiens

<400> 18

Trp Glu Pro Trp Leu Pro Ala Glu Ala Leu Thr Arg Leu Arg Ile Gly
1 5 10 15

Gly Phe Tyr

<210> 19
<211> 19
<212> PRT
<213> Homo sapiens

<400> 19

Gln Pro Ala Ala Met Met Glu Asp Ser Asp Ser Asp Asp Tyr Ile Asn
1 5 10 15

Val Pro Ala

<210> 20
<211> 19
<212> PRT
<213> Homo sapiens

<400> 20

Thr Glu Ala Cys Val Val Arg Asp Ala Asp Asn Glu Pro His Ile Glu
1 5 10 15

Arg Pro Ala

<210> 21
<211> 19
<212> PRT
<213> Homo sapiens

<400> 21

Gln Pro Ala Pro Arg Glu Glu Glu Thr Gly Thr Glu Glu Tyr Met Lys
1 5 10 15

Met Asp Leu

<210> 22
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<400> 22
gctcacttac aggctctcta 20

<210> 23
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<400> 23
caggtggggt ctttcattcc 20

<210> 24
<211> 5
<212> PRT
<213> Homo sapiens

<400> 24

Val Thr Leu Thr Cys
1 5

<210> 25
<211> 8
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> "Xaa" at position 3 can be Gly or Ala.

<220>
<221> MISC_FEATURE

<222> (4)..(6)
<223> "Xaa" at positions 4 and 6 can be any amino acid.

<400> 25

Asp Ser Xaa Xaa Tyr Xaa Cys Ala
1 5

<210> 26
<211> 5
<212> PRT
<213> Homo sapiens

<400> 26

Val Thr Ile Lys Cys
1 5

<210> 27
<211> 7
<212> PRT
<213> Homo sapiens

<400> 27

B12 wt

Asp Ser Gly Val Tyr Ala Cys
1 5

<210> 28
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> primer

<400> 28
agaattctct ctaggggctc ttggatg 27

<210> 29
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> primer

<400> 29
ataaagcttc tcagggcaca gatagatgg 29

<210> 30

<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> primer

<400> 30
agaggcatag ctattgtctc gg 22

<210> 31
<211> 20
<212> DNA
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<220>
<223> primer

<400> 31
acatttggat cagggcaaag 20

<210> 32
<211> 20
<212> DNA
<213> Artificial sequence

B12 cont.

<220>
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<400> 32
gggagaagta aagaacaaag 20

<210> 33
<211> 20
<212> DNA
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<220>
<223> primer

<400> 33
cgtaggcaca atcacagcat 20

<210> 34
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> primer

<400> 34
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<210> 35
<211> 17
<212> DNA
<213> Artificial sequence

<220>
<223> primer

<400> 35
ctggggttgg ggatagc 17

B12 cord